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CASES ILLUSTRATING CONSERVATIVE MILITARY SURGERY.

BY FRANCIS H. BROWN, M.D., CAMBRIDGE.

[Communicated for the Boston Medical and Surgical Journal.]

R. MARTIN, New York 30th. Wounded at Bull Run, August 30th, 1862. Ball entered outer and dorsal aspect of right arm, three inches below olecranon; the ball there split—one portion passing up, through the outer condyle of the humerus and lower part of the shaft of the bone, and thence out on the outer and posterior aspect of the arm, three inches below the elbow; the second portion passed through the radius and ulna, at a right angle to the axes of the bones, and lodged. This portion was removed by incision at a subsequent period. In addition, the humerus was fractured transversely just above the exit wound of the first portion of the ball, either by a fall or by concussion. In this case there was fracture of the humerus; comminution of the lower end of the same bone; injury to the joint; comminuted fracture of radius and ulna; and two ball-tracks of, perhaps, six and two inches respectively. We can scarcely wonder at the decision of the surgeon on the field to remove the limb, which, indeed, he was only prevented doing by the exhaustion of his chloroform.

Two days after receipt of the wound, the patient was received into hospital. The arm was found very much swollen and inflamed, partly due, undoubtedly, to his transportation and a tight bandage, but the vessels and nerves were uninjured, and it was decided to save the arm, if possible. The limb was put up firmly in felt splints, and antiphlogistic remedies were used locally and generally. For some days great constitutional irritation existed; the arm remained highly inflamed, swollen and painful, but at no time took on an unhealthy condition. The fractures united well. At the earliest possible day flexion and extension and pronation and supination were induced. When last heard from (three and a half months after the injury), he had entirely recovered, the only trouble being that in extending the arm it lacked an inch or two of being straight.

Longmore relates a very similar case in the attack on the Redan,

in which the patient recovered with a useful limb (p. 107), and several cases of equal or more serious injuries, followed by recovery.

E. A. Barrell, N. H. 6th. Wounded before Richmond; admitted to hospital September 3d, 1862. Ball entered on inner aspect of right leg, four inches above malleolus; passed through tibia and out just over edge of fibula, five inches above outer malleolus. The tibia was fractured and thoroughly comminuted at point of wound; the fibula uninjured. This patient also just escaped amputation on the field. On entrance, the leg was much swollen and had a very angry look about the seat of fracture. Several pieces of bone were removed. The limb was put up in a fracture-box and carefully dressed from day to day. On the 1st of October there was good union in the tibia, one wound was closed and the other doing well. He was afterwards discharged from the hospital with a good limb.

Daniel C. Harvey, Mass. 19th. Wounded before Richmond June 30th, 1862. Ball entered posterior surface of right arm, about over centre of ulna, passed through this bone and out by two wounds on anterior and inner surfaces. The ulna was much shattered, up and down, and the wounds were all very large and lacerated, one of the wounds of exit being about three inches long. On the eleventh day after the wound, four inches of the continuity of the bone were removed, leaving the ends of the bone sound and smooth. The wounds healed well by granulation. He was discharged from service Oct. 1st; at this time he was able to use his arm for purposes requiring considerable power; the radius, on the principle of compensation, had perceptibly enlarged; pronation and supination were successfully performed.*

This patient came under observation recently (December) for the purpose of having a small piece of dead bone removed. For some months he has been at work, receiving full wages, at the rope-walk in the Charlestown Navy Yard. He has very good use of his arm. The radius has considerably enlarged; pronation and supination are perfect. He still has very imperfect command over the ring and little fingers, but otherwise uses his hand and arm perfectly.

LIGATURE OF THE SUBCLAVIAN ARTERY.

[Performed by Dr. Armsby, of Albany, and communicated for the Boston Medical and Surgical Journal by Marvin R. Peck, M.D., of Glens Falls, N. Y.]

Mr. John Ferguson, of Glens Falls, Warren Co., N. Y., had his right arm shattered by the accidental discharge of a cannon on the 7th day of July, 1863. He was 28 years of age, of sound health,

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* An analogous case is mentioned by Staff Surgeon Williamson, of the English army in India, in which he removed the entire ulna, two inches of the humerus and the head and neck of the radius; and four months after the operation the man could "bend his forearm, lift a twenty-eight pound weight, pronate and supinate the hand and use his fingers well."—Longmore, p. 106.

and of large, robust frame. Gangrene commenced on the second day, and on the third I amputated near the shoulder, assisted by Drs. Holden, Ferguson, Sternberg and Littlefield. The stump healed kindly, and on the twelfth day after the amputation he was able to go out, and soon after resumed his usual active business pursuits. His health remained good until September, when he began to have pain and swelling of the stump, which continued until the 10th day of November, when I detected the pulsation of an aneurismal tumor. It increased rapidly, elevating the bones of the shoulders, the pectoral muscles, and filling the axilla. The skin soon after gave way, and he lost, by a sudden and rapid hæmorrhage, between two and three quarts of blood. He fainted, and became nearly pulseless; the opening was closed by compresses and adhesive plaster. The only chance now of saving his life was by ligature of the subclavian artery above the clavicle, and Dr. James H. Armsby, of the Albany Medical College, was selected to perform the operation.

The operation was performed on the 19th of November, 1863, assisted by Drs. Ferguson, Sternberg and myself, of Glens Falls, Dr. Little, of Fort Edward, and Mr. Armsby, of Albany. The patient was placed on his back, with his face turned to the left. The first incision was about half an inch above and parallel with the superior border of the clavicle, extending from the sterno-mastoid to the trapezius muscle, and exposing the superficial cervical fascia and the platysma myoides. The second incision was vertical, along the posterior border of the sterno-mastoid, intersecting the first at the margin of this muscle. In elevating the superficial fascia and the platysma myoides, it became necessary to apply a ligature to the external jugular vein, and divide it, as it could not be sufficiently retracted without danger of laceration. Three branches of the supra-scapular and deep cervical arteries bled profusely, and required ligatures. The clavicular attachment of the sterno-mastoid was unusually broad, and one half of it had to be divided to reach the scalenus-anticus, at its attachment to the first rib. The deep cervical artery was held upward; the supra-scapular artery and the subclavian vein carefully depressed; and the great subclavian artery fully exposed as it emerged from between the scaleni muscles. In separating the artery from the great veins, which covered and enclosed it, a slight gurgling sound occurred, as if air was entering the circulation. This was a moment of intense anxiety, as such an accident might have been instantly fatal. A bit of sponge was pressed against the part, and as no constitutional disturbance followed, the operation proceeded. The artery was found in a healthy state, and the ligature was cast around it by the aneurismal needle of Mott. The situation of the artery was unusually deep, from the elevated position of the shoulder, by the tumor, but every person present had a distinct view of it before the ligature was tied.

The chief difficulties and dangers of the operation consisted in

the following circumstances:—The great size of the tumor, thrusting upward the bones of the shoulder; the distension of the surrounding parts; the great size of the veins, which covered and enveloped the artery; the large nerves of the axillary plexus, liable to be included in the ligature; and the danger of the introduction of air into the circulation. The pulsation in the tumor ceased as soon as the ligature was drawn, and the patient improved rapidly under the use of tonics. The sac gradually diminished, until the nineteenth day after the operation, when it became more painful, and the skin, or a portion of it, gave indications of sloughing. Dr. Armsby was again sent for, who opened the sac, and removed nearly a quart of coagulated blood and fibrinous matter.

The case has progressed favorably; the ligature came away on the twenty-ninth day, and the recovery has been rapid and complete, so far as the operation is concerned. There is a slight discharge of watery matter from the sac, which is gradually diminishing.

January 22d, 1864.

TREATMENT OF DEFORMITIES.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—Although during the last seventeen months employed in military service, where subjects coming properly under the head of orthopedic surgery, in the most extensive signification of the word, must be of course rare instances, and those only occurring in adults, who seldom remain long enough under the treatment of a military surgeon, I have not entirely forgotten my private practice, to which I shall be happy to return at an early day.

In perusing an article in the last number of your JOURNAL, reprinted from the *Chicago Medical Examiner*, on "Improved Methods of Treatment in Deformities," I am forcibly reminded of many of the orthopedic institutions which in my time have flourished in Germany, among which are several that are mentioned in that article. Time and space do not allow me to enter into a very explicit discussion of a subject of so much importance in surgery, but I cannot forbear to make a few remarks, or rather state a few conclusions to which I have been led while engaged in the study of my profession in several of the most prominent hospitals of the Continent, and during my own practice since; especially as regarding the treatment of deformities of the spinal column.

I take the ground that such deformities, although they may neither be the result of, nor much dependent on muscular action or inaction, are most rationally treated by any appliances or stimulants, acting directly towards encouraging the muscular development of these and the neighboring parts, rather than by machinery, more or less complicated, applied for the mere purpose of extension, counter-extension and

lateral action. Extension by a stretch-bed or other appliances may be very proper in some cases, but I doubt if many of them can be properly classed with orthopedic deformities. After such extensions have been carried as far (be it forcible or gradual) as may seem practicable, what would or must be the result, if no proper stimulants or nourishment are furnished to the muscles partaking in or upholding such a forced strain on the osseous and ligamentous structure, even disregarding the very prominent part the nervous system takes necessarily in the cause? To merely stretch muscles and ligaments to their utmost power is certainly not calculated to increase their strength, elasticity and vitality; but on the contrary, the additional effort, forced from them by mechanical means, would in most cases prove an additional source of weakness.

At the present standpoint of orthopedic surgery in this and other countries, there are certainly many and good appliances to choose from for adaptation to different cases of deformities, but in my opinion and by my actual experience in not a few cases (amongst which I would mention some acquired after the memorable Pemberton accident, at Lawrence, Mass., and of course more or less the result of traumatic injuries), I would take the ground decidedly, that the indication in the treatment of most, if not all such cases is, proper nourishment to the general system, direct nourishment to the muscles involved in the case, stimulation to the nervous system, and afterwards, and only then, a judicious selection of mechanical appliances, still in combination with the former, followed by properly conducted exercises in gymnastics. The first indication, of course, suggests proper nourishing diet, good healthy location, and as much exercise in the open air as can be obtained. As direct stimulants to the muscular and nervous system, liniments, rubefacients, &c., are in most cases called for, but one of the most beneficial remedial agents in my hands has been cold water, applied as a douche, or by sponging and dry rubbing afterwards. I have also employed, in combination with this treatment, electricity with good success, and in a few cases (including some complicated with partial paralysis), where all means seemed to fail to give tone and restore proper vitality, I have had very beneficial results from animal warmth, applied in the old-fashioned mode, still much in use in Germany. I would as soon endeavor to treat a case of fracture by *first* putting the limb in splints, and *afterwards* making reduction, as to make use of a stretch-bed, pulleys, &c., at the commencement of the treatment of a case coming properly under the head of orthopedic deformity.

Lovell Gen. Hospital, Portsmouth Grove, R.I., Jan. 25th, 1864.

E. SEYFFARTH,
A. A. Surgeon, U.S.A.

CASE OF POLYPUS OF THE UTERUS.

[Communicated for the Boston Medical and Surgical Journal.]

THE following case of fibrous polypus of the uterus, which has recently occurred in my practice, is worthy of notice from the unusual termination of the case. It shows the effort nature often makes to restore the human system, and to repair the injuries done it.

I was called suddenly, not long since, to a single lady of about 32 years of age. Upon inquiry what her disease was, she replied, that she had a prolapsus of the womb, which she had called upon me to replace. On examination of the patient, I discovered a large fibrous polypus of the uterus, expelled from the vagina, of nearly three pounds weight. I immediately called for a ligature, and placed it as high up as possible on the pedicle, which appeared to be a large fold of the lining membrane of the uterus. Having strangulated the pedicle, I let the tumor remain for three days, during which time it shrunk much; I then removed it with a probe-pointed bistoury. It weighed two pounds. The pedicle came away in a day or two, and the patient found herself much relieved.

Inquiring into the history of the case, as the person was a stranger to me, I learned that she had been suffering ten or twelve years from severe menorrhagia. The face was pale and anæmic, her health and strength broken down, and she was much emaciated, from the excessive loss of blood she had been sustaining for many years. She had been treated by different medical gentlemen in the city, with iron, styptics and astringents. A vaginal examination had never been made in order to ascertain the source of the hæmorrhage. She at last applied to a mesmeric physician, who, after a *thorough examination*, told her that she had no disease but debility, and her only remedies were rest and tonics. The lady and her physician now have some hope that, although still confined to her bed, she will ultimately recover.

E. WOODWARD.

Quincy, Mass.

MORTALITY OF NEW YORK CITY IN 1863.—The increase of deaths, as compared with 1862, is 3,952. The increase of mortality is regarded by the City Inspector as less than might be expected, when considered in relation to the actual population of New York in 1863. To the influx of strangers, which has been unprecedented, is attributed a very large number of deaths. A large number of soldiers, who have been discharged from the army as invalids, and incapacitated for further service in the field, have died in the city. Other causes of increase were the crowding of the public parks by the soldiers, the large emigration to the port during the year of 150,000, the filthy condition of the public streets, and the injurious effects on the public health of the riots last summer.

STATISTICAL ANALYSIS OF CASES OF CHOREA.

By Thomas B. Peacock, M.D., F.R.C.P., Physician to St. Thomas's Hospital.

The cases of which the following paper contains the statistical analysis, were treated by myself within the last few years, and, with the exception of three or four seen in private practice, all but one occurred at St. Thomas's Hospital.

Distribution of Cases as to Age and Sex.

Ages.	Total.	Males.	Females.
5 years	1	1	0
5 to 10 "	13	6	7
10 to 20 "	14	4	10
20 to 30 "	1	0	1
30 to 40 "	0	0	0
40 to 50 "	1	0	1
50 "	1	0	1
	31	11	20
Mean age	14·6	10·7	16·8

Predisposing Causes.

Occurred during rheumatic fever, with cardiac complication . .	1
Supervened a fortnight after recovery from what was regarded as diaphragmatic pleurisy, but which may have been some cardiac affection, though unconnected with any obvious physical signs	1
Supervened six months after attack of rheumatic fever, not obviously attended by any cardiac complication	1
Supervened shortly after an attack of rheumatic fever, and attended by a systolic murmur heard at the base	1
Stated to have been preceded by pains in the shoulder and thigh, but so slight as not to receive medical attention	1
Accompanied by a systolic murmur at the base, but no statement as to previous attack of rheumatic fever	1
Supervened shortly after an attack of erysipelas of the face . .	1
Followed, after an interval of a year and a half, an illness said to have been inflammation of the kidneys	1
Out of health three months before, but not laboring under any definite illness	1
Connected with retention of the catamenia	1
Connected with irregularity and defect of catamenia	1
In the sixth month of pregnancy, in a person who had had chorea in early life	1
No predisposing cause ascertained	19
	31

Connection of Cases with Rheumatism and Cardiac Affections.

Never had any form of rheumatism	9
Stated to have the heart's sounds quite healthy	5
" " " loud and flat	3
No report as to rheumatism and state of heart, but in all of which it may be inferred there was no cardiac disease	14
	31

Exciting Causes.

No exciting cause named, but in all of which it may be inferred that inquiries were made, and either resulted in negative information or in a denial of any obvious cause	8
Expressly stated that no exciting cause could be ascertained	10
Present or first attack ascribed to alarm	9
Referred to sympathy from seeing another person affected with chorea	1
To chagrin at having had money stolen	1
To joy at seeing her father return, who was supposed to have been lost at sea	1
Without obvious exciting cause, but greatly aggravated by a slight fall	1
	31

Proportion of Previous and Subsequent Attacks.

There had been no previous attack in	22
One or more previous attacks in	9
	31

Duration of the Attack for which admitted before the commencement of the Treatment.

2 days	1	
7 days	3	
10 days	1	
2 weeks	5	
3 weeks	1	
1 month	6	
6 weeks	1	
2 months	1	
9 weeks	1	
10 weeks	1	
3 months	2	
4 months	1	
	24	
Not precisely ascertained	7	
		31

Period at which the Previous Attacks had occurred in cases where there were two or more.

In early life, the patient being 22 years of age	1
Five years before, the patient being 19 years of age	1
Two years before	1
One year and a half before (the patient having had three attacks during that period)	1
One year before (the patient having had five attacks in that period)	1
One year before (the patient having had only one attack)	1
Three months before (but two previous attacks at 13 and 15 years of age, the patient being 17)	1
Very short time previously (subsequently a third slight attack)	1
Five previous attacks, but period not named	1
	9

Result.

Cured, 25; relieved, 2; died, 2; total, 31.

Residence in Hospital.

Duration of residence in 27 cases (26 cured and 1 relieved).—Mean period 52·7 days, and extremes 15 and 153 days; or, exclusive of the case only relieved, 48·7 days, and extremes, 15 and 134 days.

2 to 3 weeks	4	
3 to 4 "	3	
4 to 5 "	1	
5 to 6 "	4	
6 to 7 "	5	
7 to 8 "	1	
8 to 9 "	3	
9 to 10 "	1	
11 to 12 "	2	
17 to 18 "	1	
19 to 20 "	1	
21 to 22 "	1	relieved.
	27	

In two cases the date of discharge is not reported.

Duration of Residence as to whether first or subsequent Attacks.

Duration of treatment in 19 out of 22 cases of first attack, 52·5 days, and extreme periods 15 and 153 days; or, deducting the case in which relief only was obtained, 46·9, and extremes, 15 and 134 days.

Duration in 8 out of 9 cases of relapse or subsequent attack, mean 52·8, extremes 21 and 122.

Duration of Residence as to Age.

In 17 cases (including three of relapses or subsequent attacks, from 5 to 14 years of age inclusive), mean age 10·1 years, and mean period of treatment 48·1 days, extremes 15 and 134.

In 8 cases (including 3 of relapses or subsequent attacks), from 15 to 22 years of age inclusive, the period of treatment was 49·8 days, mean age 19·2, extremes 20 and 68.

In 2 cases, 48 and 57 years of age, the first having shortly before had a previous attack and again relapsed after this; in the other, in which the attack was a first one, and was never entirely cured, rather lapsing into paralysis agitans, the duration of the treatment was 57 and 153 days.

Treatment.

The treatment consisted in the employment of aperients, with the view of relieving any disorder of the digestive organs which may have existed, and the repetition of such as often as required throughout the continuance of the affection; the exhibition of nervine tonics, anodynes, and occasionally counter-irritants, to remove the spasmodic action; and at a later period, the use of the tepid or cold shower- or sponge-bath, with a nutritious diet and frequently wine or malt liquor.

The nervine tonics employed were sulphate of zinc, given in doses at first of one or two grains, in infusion of valerian, and gradually increased by one or two grains at a time, generally twice a week, and repeated three times daily; the remedy being suspended if sickness was produced; or when the symptoms subsided. The doses required for the cure in cases where zinc only was employed were four, six, eight, nine, eighteen, and twenty grains.

Iron was chiefly given in the form of the saccharine carbonate, in doses of five, ten, fifteen, twenty and thirty grains, three times daily; occasionally the sesquioxide was employed, and rarely the sulphate of quinine and iron, with an excess of sulphuric acid; or the citrate of quinine and iron.

Arsenic was given, in the form of the liquor potassæ arsenitis, in doses gradually increased from three or four to eight minims, three times daily.

The anodynes employed were morphia or hyoscyamus, exhibited at bedtime or more frequently during the day.

Blisters were occasionally applied either at the back of the neck or down the spine.

Tepid or cold sponging and the shower-bath were also frequently had recourse to.

The results of the treatment by these different remedies were as follows:—

The affection was cured by the employment of zinc alone in 7 cases, including three cases of relapse or subsequent attacks.

The mean age of the patients so treated was 12·1 years, and the extreme ages 8 and 22.

The period of time occupied in the cure averaged 35·5 days, and ranged from 21 to 63 days.

The cure was effected by iron alone in 6 cases, 1 being a case of relapse or subsequent attack.

The mean age of the patients was 10·4 years, and the extreme ages 10 and 13.

The period of treatment (the date of discharge in one case not being reported) was 28·6 days, and the extreme periods 20 and 46 days.

Zinc failed, but iron effected the cure in 6 cases, the mean age of the patients being 13.3, and the extremes of age 5 and 19.

The average period of treatment was 53·6 days, and the extreme periods 38 and 84 days.

Iron failed and zinc proved successful in 2 cases, the ages of the patients being 13 and 19, and the periods of treatment 122 and 68 days; both were cases of relapse or subsequent seizure.

Zinc and iron both failed, and the cure was effected by arsenic, in 1 case; the age of the patient was 9, and the duration of treatment was 78 days.

Zinc and arsenic failed in 1 case; but the patient was cured by iron and morphia, the latter exhibited first every night, in doses from one sixth to one third of a grain, and subsequently every night and morning. The patient was 14 years of age, and the duration of the treatment extended to 134 days.

Iron and arsenic were both used with little benefit in 1 case; but the patient recovered considerably under the use of zinc. The symptoms, however, never entirely subsided, but lapsed into an affection of the face and head, somewhat resembling paralysis agitans. The age of the patient was 57, and the duration of treatment 153 days.

Arsenic aggravated the symptoms, and zinc effected a cure in 1 case, the patient being 10 years old, and the treatment extended to 37 days.

Quinine and iron were successfully used in 2 slight cases of relapse, ages 48 and 12, and periods of treatment 57 and 41 days.

Of the two fatal cases, one terminated on the 6th day from admission, the 26th from commencement of treatment, and about the 34th from seizure; the other on the 15th from admission and 30th from seizure. Both the patients were 11 years of age; one was a boy, the other a girl. One took zinc, iron, arsenic, and morphia; had blisters, &c., applied: the treatment of the other case consisted in the employment of sesquioxide of iron and sulphate of zinc, opiates, and the application of blisters.

Conclusions.

The general conclusions deducible from this small number of cases

correspond with those which have been arrived at by observations on much larger series:—

1st. The disease is shown to be much more common in females than in males, the proportion being 20 females to 11 males.

2d. It occurs at all ages, but much the most frequently in early life or youth and girlhood, or from 5 to 20 years of age. The cases at this period of life constituted 27 out of the 31 analyzed.

3d. The affection appears to be about equally frequent in young boys and in young girls, the number of cases at from 5 to 10 years of age being in boys 6, in girls 7.

4th. At a later period, or in youth and girlhood, or from 10 to 20 years of age, there is a great difference in the frequency of the disease in the two sexes, the cases in males being only 4, and in females 10. After this period also, the female sex seems to be very much more exposed to the disease than males; these facts pointing to catamenial irregularities, or other uterine disorders, as being influential in predisposing to the disease.

5th. By far the most frequent co-existence with chorea is, however, some form of rheumatic or cardiac affection. In 3 cases, the chorea supervened during or after attacks of rheumatic fever, and in a fourth the affection commenced with slight rheumatic symptoms. In one of the former cases there was obvious cardiac complication, and in a fifth there were signs of cardiac disease, but without any history of rheumatism. In 9 other cases it is stated that the patients and their friends had no knowledge of their ever having had rheumatism. It would thus appear that, in 14 cases, rheumatic or cardiac symptoms had existed in 5. It is, however, probable that this proportion is too large, as almost certainly full inquiry was made in reference to all the other cases, but failed to elicit any information. The co-existence or near connection of rheumatic and choreic attacks has, however, been so frequently observed as to have completely established the existence of some relation between the two affections, probably as coincident effects of a common cause.

In two other cases, not included in the report, in which the symptoms were mainly cardiac, there had been, or existed, symptoms of chorea. In one of these, a girl 9 years of age, the patient died of regurgitation through the mitral orifice from dilatation of the aperture without valvular disease, and the heart was very large—ten ounces and a half—double the natural size; the pericardium was adherent in places, and the endocardium thickened. The patient had had chorea three years before her death; and suffered first from cardiac symptoms after an attack of influenza about two years after. In the other case, a boy of 14, there were chorea, spasms, and paralysis of the left hand and arm, with rheumatic pains in different parts of the body, and cardiac symptoms, which had supervened three months before. The symptoms were apparently brought on by mental excitement. After death, the heart was found greatly en-

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larged; there was some effusion in the pericardium, and vegetations on the aortic and mitral valves. The patient had never been quite well since a severe attack of scarlet fever seven years before.

6th. The most frequent exciting causes of chorea are more or less violent mental impressions—fear, grief, excessive joy, &c. Of the 31 cases analyzed, 11 originated in some impression on the mind, and in the 12th, though the patient had had a slight fall, fear was probably the cause of the attack. It thus appears that mental causes operated in exciting the disease in 38·7 per cent. of the cases, and it is probable that the common origin of the disease in mental impressions explains in part its greater frequency in females. For such causes, however, to give rise to the symptoms, it is doubtless necessary that the individual should be unduly susceptible, for in several cases the assigned impressions were of too trifling a nature to have operated injuriously upon a healthy person. In 18 cases, also, or 58·06 per cent., it may be inferred that no exciting cause could be detected.

7th. The indications for treatment are to relieve gastro-intestinal irritation, quiet the nervous system, and improve the general power and the condition of the blood. The remedies which were employed for these purposes have already been mentioned. In the selection of the kind of nervine tonic to be exhibited in any given case, I have generally been guided by the existence or absence of evidences of chlorosis. When the patient is very anæmic, as indicated by the color of the skin and mucous membranes, the presence of continued venous murmur in the neck, &c., I have usually, after the employment of aperients, had recourse to chalybeate medicines; when, on the contrary, the patient was free from such symptoms, the zinc has generally been first employed:—the other remedies—arsenic, opium, &c.—only being had recourse to when the iron or zinc had failed. Under all forms of nervine tonic, the patients occasionally fail to derive benefit, but, as a general remark, zinc seems to prove more rapidly useful and to afford more prompt relief than iron. The remedies act with greater efficiency according to the rapidity with which the doses are increased and the full extent of the increase. Thus, I have generally increased the dose twice or three times in the week, adding in the case of the zinc at first one grain, and subsequently two or more each time. Though in the cases of chorea no patient took more than twenty grains of the sulphate of zinc for a dose, I have in other affections given thirty grains three times a day, and without producing sickness or any evidence of gastro-intestinal irritation.

When any given remedy has been fairly tried without marked amendment, or when the improvement at first noticed has not been continuous, it is better to substitute some other medicine, and the improvement which follows the employment of the new remedy is often very marked; and I have sometimes noticed this when a second or a third change has been made.

A good indication of the advantages of treatment may be derived

from the condition of the pupils; generally in the active stage of chorea they are very large and nearly insensible to light, and as the patients recover, the pupils diminish in size and resume their proper motion. The shower-bath is often very beneficial, but in children it is apt to create alarm and to aggravate the symptoms. When this has been the case, I have preferred to employ ablution, and have used cold or tepid water, according to the state of the weather and the feelings of the patient.

8th. It does not appear that there is much difference in the facility of cure in cases of first attack, or of relapses or subsequent seizures. The age, also, does not influence the result, provided the patients be not in advanced life. In the only two cases at middle age and advanced age the attacks were, however, very prolonged, and in the elderly person the cure was only partial.

9th. Under any course of treatment chorea is very apt to relapse; and even after recovery is complete, attacks for a second or third time, or even oftener, frequently occur. It will be seen that in 9 out of the 31 cases, or 29·03 per cent., the patients had had previous attacks. I am disposed to believe, without, however, being able to bring conclusive proof on the point, that relapses occur less frequently in the cases which are treated by zinc than in those in which iron has been used; I have therefore not unfrequently given zinc to patients after the active symptoms have been relieved by the use of iron, and apparently with benefit in preventing relapse.

Fatal Case of Chorea.—John Adkins, aged 11, admitted into the Royal Free Hospital, August 2d, 1849. The symptoms were first observed about a month before; he was observed to twitch the hands and arms, and the spasms increased, so that he was brought to me as an out-patient on the 12th of July. He was directed to have a calomel and rhubarb purge, and to take ten grains of the sesquioxide of iron three times daily. When admitted into the hospital he had constant spasms of the muscles of the face, arms, and legs; he had difficulty in protruding his tongue, and could not retain it even for a very short time; he could not walk, and tossed himself about on the bed in every direction, and he had a peculiar vacant stare. He was directed to have a purgative, and take ten grains of sulphate of zinc three times daily. Anodynes were prescribed, but did not procure rest or sleep; and he was blistered at the back of the neck and down the spine. The convulsions became more constant and general, his intelligence declined, and he died comatose on the 8th—the sixth day from admission into the hospital, the twenty-sixth from the commencement of the treatment, and about five weeks from the first occurrence of the symptoms. On examination after death, the arachnoid membrane on the surface of the hemispheres was found opaque, and a copious effusion of serum existed beneath it. Much fluid was also effused in the ventricle, and existed at the base. The spinal cord was not examined. The cerebrum weighed 50 ounces, the cerebel-

lum 5 ounces and 4 drachms, the pons varolii and medulla oblongata 1 ounce, making the whole encephalon 56 ounces and 4 drachms avoirdupois. The pericardium and heart were healthy, except that two of the folds of the aortic valves were somewhat united at the angle of attachment, and a loose band existed at the margin of one of them. This condition, however, was evidently a congenital defect. The heart weighed four ounces.—*British and Foreign Medico-Chirurgical Review.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURDSAY, FEBRUARY 4, 1864.

THE BOSTON SOCIETY OF NATURAL HISTORY.—If there is anything not directly connected with itself upon which the medical profession of this community may especially pride itself, it is the progress which has been made in the study of natural science among us during the last thirty years, and the success which has marked the course of its foster child, the Boston Society of Natural History. This Society was founded in 1830 by a few gentlemen, mostly members of our profession, at which time almost nothing was known of the geology of our country or of its fauna and flora. Under its direction and by its own members, five of whom were physicians, those thorough surveys of the State were undertaken, which were published by the Commonwealth, and formed the first systematic reports upon the natural history of the United States. Since then the Society has published many volumes of its valuable Journal and its Proceedings, which are exchanged for the publications of nearly all the scientific associations of the world, and have been the means of extending its usefulness far and near.

The Society at first occupied a few rooms of an upper story in Tremont Street, but in 1845 it raised by subscription money enough to purchase the old medical college in Mason Street, where it was supposed the accommodations would be sufficient for all time; but the collections in the various departments increased so rapidly by contributions and donations from all parts of the world, that ten years were sufficient to more than fill it. In 1859, therefore, a petition was presented to the Legislature asking for a grant of land upon the new-made Back Bay territory for building purposes, and in 1860 another similar effort was made in connection with the Institute of Technology, but it was not until the following year that success rewarded the long-continued efforts of the Society. Even then the land was given only on condition that the character of the buildings erected should be sufficiently attractive to enhance the value of the neighboring sites enough to make good the loss thus incurred. The difficulty encountered in obtaining from the State this just reward for its long-continued services in so important a field of public education, may perhaps be explained by the extreme modesty with which the Society has always urged its claims upon the community, and its exclusive devotion to

the cultivation of natural science in place of popular favor. So entirely characteristic has been this trait not only of the Society as such, but of its working members, that several of them, who are known among us only as eminent physicians or quiet professors, hold the very first rank in Europe as scientific men in the departments of natural history in which they have so unostentatiously labored.

Fortunately for the Society, however, it found in Dr. William J. Walker a patron whose generosity needed no stimulus of popular excitement, and received from him such liberal aid that, with the contributions of others and the money obtained by the sale of the estate in Mason Street, it was enabled to erect its present magnificent building on Berkeley Street. This building, which has been regarded by all who have examined it as the best of its kind in the country, is now completed, and will be open to the public as soon as the collections can be properly arranged. The Society has lately received large and very valuable additions to its museum and library, and has established a department of Ethnology, which it is designed to render as complete as possible by a perfect series of human crania, and any gentlemen possessing authentic specimens of this kind may be assured that no more useful disposition of them can be made than by sending them to the Society's collections.

A larger working fund being now necessary to carry on effectually the objects of the Society, Dr. Walker has again offered the sum of twenty thousand dollars, provided the same amount is obtained from other sources, and we sincerely trust that the committee appointed to raise this sum by subscription may be successful in their undertaking. Such unbounded liberality on the part of one of our profession certainly deserves to be widely known, and in this community as well as in Philadelphia it may now be said, that to members of our profession is due the principal credit both of developing the study of natural history among us and of furnishing the means of making such investigations of the greatest service to mankind.

Resolutions upon the Death of Dr. Dalton.—At the regular monthly meeting of the Suffolk District Medical Society, held on Saturday evening, January 30th, the President alluded to the loss the Society had met with in the death of Dr. Dalton since its last meeting, and stated that Dr. Reynolds, his most intimate friend, had been requested to present resolutions appropriate to the occasion. Dr. Reynolds then addressed the Society as follows :—

Mr. President,—Since the last meeting of this Society, we have been called to mourn the death of Dr. John C. Dalton, one of its best and most beloved members. I have been requested, as one of his intimate friends, to notice by a few words the sad event. But he has been so favorably known by you all, during the past four or five years of his residence among us, that these words may be few.

I need not speak here of the eminent intellectual qualities which so well fitted him for the arduous duties to which he devoted his life ; his ardent love for the medical profession, and his high conception of its power for doing good ; his thirst for knowledge in all its departments, not for his own aggrandizement, but for the benefit of others. I need not tell the members of this Society of his zeal in making

himself acquainted with every improvement in medical science during the whole period of his professional life, or of the skill with which he used them; his willing labors, while reposing among us from its daily toils, in the promotion of its best interests; his punctual presence at all our meetings, at our infirmaries and hospitals, and everywhere where he could acquire or communicate useful knowledge.

You need not to be reminded by me of his strong interest in all our public institutions, charitable, social or literary, and in everything that concerned the welfare of our city and the promotion of order and good morals. And, surely, I need not speak in this little gathering of medical friends, where he was so well known, of his ardent love of country, and his abounding labors in the Sanitary Commission and every other department which opened an opportunity for the free-will offerings of his patriotic heart. As a free, willing, public-spirited man, ready to make any sacrifice for the Nation's cause, he is known by all, respected and loved by all, and all feel his death to be a cause of public as well as professional sorrow.

It is more grateful to me on this occasion to speak of Dr. Dalton as a man and a friend; to dwell for a few moments upon his moral qualities, which were, to me, quite as remarkable as the intellectual. I have known him intimately forty long years, and I now look in vain for any stain upon him that I would wipe away. He was in all the relations of life conscientious, faithful, just, generous and true; warm-hearted and sincere; remarkably free from envy, jealousy, evil-speaking and all uncharitableness. He seemed to me an unambitious man, except for the faithful performance of every duty; very unselfish, honorable, as mindful always of the rights of others as his own. He was modest and humble, appreciating readily the merits of others, and seemingly unconscious of his own. He was loving, and so, beloved; confiding, and therefore confided in. Feeling no enmity, he had no enemies. His standard for imitation was very high—the Law of God and the Sermon on the Mount; his daily regret, the impossibility of rising up to its pure demands. And, with all this, there was a certain charm about his fine, intelligent face, his honest smile, his gentlemanly bearing, and the genial pressure of his hand, that seemed at a first interview to make every one his friend.

It was true goodness of character, the happy union of moral and intellectual graces—that made him so acceptable among us. Here we learn the secret of the loving tears that were shed at his departure from Lowell, the place of his long-life faithful toil, for a comparative season of repose among his relations and friends in his native city; and the universal sorrow of that long procession of friends there, who gathered about his remains on their arrival, and followed them reverently and in sadness to his last resting place in their midst.

One word more, and I will close. Such, in my estimation, was Dr. John C. Dalton. He was beautiful in life and beautiful in death. His last hours were hours of sweet peace, and firm trust in the Highest Wisdom and Love. His last words were brave words of Christian counsel to his children and nearest friends. All who witnessed those hours and heard those words, must have recognized the broad foundation on which his character was moulded, and the Source, something, surely, higher than earth, of his true, noble life.

With these few, and I feel sure that you will all add, *true* words, I submit for your consideration the following resolutions :—

Resolved, That the members of this Society have heard with profound regret the announcement of the death of Dr. John C. Dalton, one of its most honored and beloved members.

That in Dr. Dalton's character the qualities which ensure professional eminence and usefulness were admirably united to those which win universal respect and love.

That through a long professional career he was distinguished not only by abilities of a high order, and the most thorough training in his art, but by the spirit of a high-minded and honorable Christian gentleman.

That in his death the medical profession has lost one of its best members, the poor a kind and tender friend, society a man greatly beloved, and our country a patriot who knew no sacrifice too costly to make in her defence.

That we offer our heartfelt sympathy to his bereaved family, with the hope that in this the hour of its great sorrow, they may be borne up by Heaven's best consolations, and soothed by the pleasant memories that will ever cluster about his noble life and beautiful death.

LOWELL, January 27th, 1864.

The following preamble and resolutions were presented by Dr. Elisha Huntington, and unanimously adopted by the Fellows of the Middlesex North District Medical Society at their regular quarterly meeting :—

Whereas, it has pleased Almighty God to remove from this world our friend and late fellow member of the Middlesex North District Medical Society, John Call Dalton, M.D., while humbly bowing to this dispensation of an All-wise Providence, it becomes us to give some public expressions to the feelings that an event so unexpected and so sad is well designed to excite—

Therefore resolved, 1st, That in the death of Dr. Dalton we mourn the loss of a remarkably intelligent and sagacious physician, a wise and judicious counsellor, a warm-hearted and genial friend, and a high-principled and Christian gentleman.

2d, That in our behalf and in behalf of this community where for so many years the deceased was known and loved, we desire to bear our testimony to his uniform kindness, to his unfailing charity, and to his active devotion to every good work.

3d, That in the zeal and devotion he has manifested in the present unhappy struggle for national unity; in the dedication of his own sons to his beloved country; in the sacrifice of time and money for the benefit of the suffering soldiers, he has proved himself a true man and an enlightened patriot.

4th, That Dr. John C. Green be requested to deliver before the Middlesex North District Medical Society an address upon the life and character of Dr. Dalton, at such time as may suit his convenience.

5th, That a copy of these resolutions, duly signed by the President and Secretary, be forwarded to the family of the late Dr. Dalton, and that the same be published in the Boston Medical and Surgical Journal and in the papers in this city.

GEO. B. WHITMORE, *Secretary.*

JONATHAN BROWN, *President.*

THE MALDEN MURDER.—We are much pleased to be able to exonerate a most worthy member of our profession from any suspicion of haste or want of care in this affair, which we noticed in our issue of Jan. 21st. Dr. Sullivan's conduct throughout, as will be seen, was in every way such as we should expect of a gentleman of his high character and professional standing. The facts are briefly these :—He paid a friendly visit to the parents of the deceased, whose family physician he had

been for many years, upon the *evening* of the murder, having been absent from town all day on professional duty.

He asked permission to look at the body as a matter of curiosity, and found it in the hands of the undertaker. With some difficulty he obtained permission to look at the wounds, and introduced a short probe, which he chanced to have with him, into the wound on the forehead, to observe for his own satisfaction merely if it apparently was connected with the wound under the ear. He could not prevail upon the gentleman who had charge of the body to disturb its position sufficiently to enable him to make a thorough examination of both wounds, and did not care to press matters at that time, as he supposed an autopsy would be directed. It was unexpected to himself that he was afterwards called upon to give evidence at the inquest. The external appearance of the wounds was such, however, that he had no doubt the deceased met his death from a bullet wound, the wound behind the right ear being the wound of entrance, and the wound near the left temple the wound of exit. At the inquest he drew the attention of the coroner and jury to the conflicting opinions of Dr. Burpee and himself, and remarked that an autopsy would remove all doubts and give him great satisfaction, but they did not see fit to order one.

Messrs. Editors,—The Suffolk District Medical Society passed the following vote at its last meeting. It has been forwarded, in the form of a petition to Congress, to the care of Hon. Henry Wilson. Cannot similar petitions go up from the Committee of the American Medical Association and from the various medical societies of the country? The bill proposed by Mr. Wilson, especially as reported back by the committee, is an admirable one, meeting all the obvious wants of the case, and I cannot but hope that Congress would, if properly urged to do so by the profession of the country, agree to take the initiative by a joint resolution, or otherwise, towards engrafting upon the interbelligerent code of all nations and for all future wars this benign and most appropriate law of the inviolability of the persons and property of surgeons and their assistants when engaged in their specific duty of caring for the wounded. Why cannot you commence the discussion of the subject in your Journal? Perhaps other journals will follow. Yours truly, Henry I. Bowditch.

February 1*st*, 1864.

The following is the petition referred to:—

Boston, January 30th, 1864.

To the Senate and House of Representatives in Congress assembled:

At a meeting of the Suffolk District Medical Society, held this day, the following resolution was passed, and the undersigned were directed to communicate it to your honorable body.

Resolved, That this Society hails with great pleasure the proposal of so admirable an ambulance bill as that which is now before Congress, through the agency of the Military Committee; and in addition thereto, would respectfully but earnestly urge that in connection with it a declaration be made by Congress, to the effect that hereafter in all wars belligerents should regard surgeons, and their assistants the men of an ambulance department, while actually engaged in their humane calling, as inviolable in their persons and property, and never, save under extraordinary circumstances, to be retained as prisoners of war.

D. H. Storer, *President.*
D. W. Cheever, *Secretary.*

Antidotes for Strychnia.—Professor R. Bellini, after conducting a long series of experiments on poisoning by strychnia and its salts, arrives at the opinion, that the best antidotes are tannic acid and tannin, chlorine, and the tinctures of iodine and bromine. Chlorine, he maintains, attacks the strychnia even when it is diffused through the system, for he found that in rabbits poisoned with the sulphate of the alkaloid, on being made to inhale chlorine gas in quantity, such as was not sufficient in itself to kill, the convulsions were retarded, and were milder when they occurred; death also was less rapid. The author further observed, that when strychnia was exhibited with pyrogallic acid, the convulsion was retarded for the space of half an hour, by comparison with other experiments in which the alkaloid was given by itself. Professor Bellini believes that this arrest in symptoms is not dependent on the acid acting chemically on the strychnia, but only through the astringent effects produced by the acid on the mucous membrane of the stomach, whereby the absorption of the poison is rendered difficult. The same author, dwelling on the frog-test for strychnia, asserts that this test is not to be trusted, inasmuch as other poisons produce the tetanic symptoms, although in a lesser degree. He adds, in speaking of the effects of the antidotes to which reference has been made, that he trusts his results will have a bearing not only on the treatment of strychnine tetanus, but on traumatic and idiopathic tetanus disease.—*British Medical Journal.*

Women's Hospital, New York.—At the late annual meeting, Dr. Thomas Addis Emmett reported that 110 patients have been under treatment in the institution during the past year. Eighty-five surgical operations have been performed during the year, mostly of a severe character. The number of out-patients was 610, all of whom could have been better treated in the hospital, had there been room for them. The receipts during the year were $7,619.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, January 30th, 1864.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week	42	42	84
Ave. mortality of corresponding weeks for ten years, 1853—1863,	39.3	34.0	73.3
Average corrected to increased population	00	00	80.56
Death of persons above 90	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
12	2	11	10	1	0	2	2

Deaths in Boston for the week ending Saturday noon, Jan. 30th, 84. Males, 42—Females, 42.—Accident, 3—apoplexy, 1—congestion of the brain, 3—disease of the brain, 2—bronchitis, 6—consumption, 12—croup, 2—diarrhœa, 1—diphtheria, 2—dropsy, 3—dropsy of the brain, 4—exhaustion, 1—scarlet fever, 11—typhoid fever, 2—disease of the heart, 2—infantile disease, 3—congestion of the lungs, 3—inflammation of the lungs, 10—malformation, 1—marasmus, 2—paralysis, 1—premature birth, 1—puerperal disease, 2—purpura hæmorrhagica, 1—smallpox, 1—tumor, 1—unknown, 3.

Under 5 years of age, 38—between 5 and 20 years, 12—between 20 and 40 years, 15—between 40 and 60 years, 12—above 60 years, 7. Born in the United States, 59—Ireland, 22—other places, 3.